

REMARKS

Claims 7, 9-18, and 20 remain in this application. Claims 1-6, 8 and 19 have been cancelled. Claims 21-23 have been added. In view of the foregoing amendments, and remarks that follow, Applicant requests favorable consideration and timely indication of allowance.

Claims 4, 5, 8 and 9 have been rejected for minor informalities. Claims 4, 5 and 8 have been cancelled, and claim 9 has been amended in the manner suggested in the Office Action. Accordingly, Applicant respectfully requests that this objection be withdrawn.

Claims 1-5, 7-9, 11, and 14-20 have been rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Kamm (U.S. Patent 5,457,680). Claims 6, 10, 12 and 13 have been rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Kamm in view of LaPorta (U.S. Patent 6,496,505 B2). These rejections are moot with respect to the cancelled claims. As to the remaining claims, these rejections are respectfully traversed.

In conventional wireless communication systems, a packet router is often used to route data packets between a network and multiple network access points. A control point is generally connected to the packet router to manage all wireless links between mobile users in communication with the multiple access networks. This architecture suffers from several problems. First, the control point is a single point of failure impacting all network access points served by the packet router. Second, the architecture does not scale well as the number of network access points served by the packet router increases, increasing with it the population of mobile users that can be served and consequently, the load presented to the control point. Last, merging high speed wireless protocols require low latency control by the control point which may not be possible due to the transmission and queuing delays between the control point and the network access points.

Applicant discloses a novel and unobvious solution to the shortcomings described above. Instead of using a single control point with each packet router, Applicant describes an architecture whereby the functionality of the control point is distributed across the network access points. This may be achieved by co-locating a control point with each network access point. The architecture proposed by the Applicant may be further optimized by also co-locating a foreign agent with each network access point.

Referring now to the specific claims, Applicant submits that they recite subject matter which is neither disclosed nor suggested by the prior art of record. Independent claim 14, for example, recites:

transmitting from the two or more network access points the received data to the remote user under control of a control point, the control point being co-located with one of the network access points.

(emphasis added).

In the Office action, it is suggested that Kamm discloses such a system. In support of this position, the Office action refers to a procedure described in Kamm where data packets destined for a mobile user, traveling outside its home network, are routed through the mobile's home gateway to the gateway currently serving the mobile. (*See Kamm, col. 7:4-25*). This procedure, however, does not disclose a process whereby data is transmitted from two or more network access points to the remote user. In the scenario just described, data is transmitted through the base station B1 (a first network access point) or the base station B2 (a second network access point) to a mobile user in its home network, and there is no mention of how data is transmitted to the mobile user outside its home network other than it is routed through the home gateway to the server gateway. These gateways are not network access points as suggested in the Office action, but rather gateways that route data between a network and the network access points. To the extent that two or more base stations are in communication with a mobile user, say, during soft handoff, there is no teaching in Kamm to suggest that control of the communications, which has traditionally been performed in the gateway, can be moved to one of the two access points. In other words, Kamm does not teach or suggest co-locating the control point with a network access point (i.e., a base station). Accordingly, it is respectfully requested that the rejection of claim 14 be withdrawn.

Independent claims 7 and 11 require that:

each of said . . . control points being co-located with one of said . . . network access points; . . . each of the control points is configured to control communications between a remote user and at least two of said . . . network access points.

(emphasis added). These claims are also patentable for the same reasons set forth above, and therefore, Applicant respectfully requests that the rejection of these claims be withdrawn.

Independent claim 18 recites:

transmitting from the network access point the received data to the remote user under control of a control point, the control point being co-located with a network access point different from said network access point.

(emphasis added).

In rejecting the subject matter of claim 18 (previously presented as claim 18), the Office action suggests that Kamm discloses a control point associated with one of at least two access points in communication with a remote user. Not only has the Office action failed to establish that Kamm discloses this concept, but it does not even address the requirement that the control point be co-located with a network access point different from said network access point. Accordingly, it is respectfully requested that this rejection be withdrawn.

Independent claim 12 recites:

transmitting the received data to a foreign agent, the foreign agent being co-located with a network access point.

(emphasis added).

In the Office action, it is recognized that Kamm does not disclose the concept of a foreign agent co-located with a network access point. Instead, the Office action relies on LaPorta for this concept. According to the Office action, it would have been obvious to one of ordinary skill in the art at the time of the invention to include the foreign agent taught by LaPorta in Kamm. Without addressing whether it is appropriate to combine LaPorta and Kamm, the resultant combination would still not yield the claimed invention. This is because claim 12 requires that the foreign agent be co-located with the network access point, and LaPorta discloses a foreign agent co-located with the mobile user. Accordingly, Applicant respectfully requests that the rejection of claim 12 also be withdrawn.

Claims 9, 10, 13, 15-17, and 20-23 are each dependent from one of the independent claims discussed above, and include all the limitations of the independent claims from which they respectfully depend. Accordingly, these claims are also allowable for the same reasons set

forth hereinbefore as well as the additional limitations recited. Applicant believes it is unnecessary to address these additional limitations at this time due to the allowability of the independent claims.

REQUEST FOR ALLOWANCE

In view of the foregoing amendments and remarks, it is respectfully submitted that this application is now in condition for allowance, and accordingly, reconsideration and allowance are respectfully requested. Should any issues remain which the Examiner believes could be resolved in a telephone interview, the Examiner is requested to telephone Applicant's undersigned attorney

Respectfully submitted,

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